

IN THE CLAIMS

1. (Amended) A methodprocess for the preparation of H_2O_2 , wherein [[,]] H_2O_2 is produced

[[by]] a first reactionstage, electrolysis converts [[ing]] H_2SO_4 into H_2 and $H_2S_2O_8$, and then

in a second reactionstage, said $H_2S_2O_8$ formed in first reaction, is reacted [[ed]] with H_2O in a second reaction to form H_2O_2 and H_2SO_4 , and wherein

a membrane performs at least one selected from of a group consisting of: the separation of said H_2 from said $H_2S_2O_8$, separation of said H_2 from a mixture of said $H_2S_2O_8$ and said H_2SO_4 , separation of said H_2O_2 from said H_2SO_4 , the separation of said H_2O_2 from said $H_2S_2O_8$, separation of said H_2O_2 and H_2O water from said H_2SO_4 , the separation of said H_2O_2 from a mixture of said H_2SO_4 and said $H_2S_2O_8$, separation of said H_2O from H_2SO_4 , the separation of said H_2SO_4 from said $H_2S_2O_8$ and any combination therein is performed with a membrane.

2. (Amended) The methodprocess of claim 1, wherein the first reaction does not go to completion and wherein, a mixture of said H_2SO_4 and said $H_2S_2O_8$ is reacted with H_2O in the second reactionstage.

3. (Amended) The methodprocess of claim 1, wherein said membrane is constructedcomprises organic materials.

4. (Amended) The methodprocess of claim 1, wherein said membrane is constructedcomprises inorganic materials.

5. (Amended) The methodprocess of claim 1, wherein said H_2SO_4 [[in the]] from said second reactionstage is recycled to [[the]] said first reactionstage.

6. (Amended) The methodprocess of claim 1, wherein said electrolysis is performed across an electrically charged conductive membrane.

7. (Amended) The methodprocess of claim 1, wherein said electrolysis is performed with electrodes.

8. (Amended) The methodprocess of claim 7, wherein said electrodes are made ofcomprise at least one selected from the group consisting of: zirconium, hastelloy, ceramic[[and]], titanium and any combination therein.

Preliminary Amendment - 10/002,742

9. (Amended) The methodprocess of claim 1, wherein at least one of [[the]]said separation [[processes]] is performed with distillation.
10. (Amended) The methodprocess of claim 9, wherein said distillation separates said H₂ from at least one of said H₂SO₄ and/or said H₂S₂O₈.
11. (Amended) The methodprocess of claim 9, wherein said distillation separates said H₂O₂ from at least one of said H₂SO₄ and/or said H₂S₂O₈.
12. (Amended) The methodprocess of claim 9, wherein said distillation separates said H₂O from at least one of said H₂SO₄ and/or said H₂S₂O₈.
13. (Amended) The methodprocess of claim 1, wherein said second reactionstage contains an excess of said H₂O, and wherein an aqueous concentration of said H₂O₂ is generated.
14. (Amended) The methodprocess of claim 1, wherein H₂O is added to said H₂O₂ from said second reactionstage.
15. (Amended) The methodprocess of claim 1, wherein there is no vehicular transportation of said H₂O.
16. (Amended) The methodprocess of claim 1, wherein said H₂ produced in the first reaction is utilized in a fuel cell to generate electricity.
17. (Amended) The methodprocess of claim 16, wherein at least a portion of said electricity is used for the electrolytic conversion of said H₂SO₄ into said H₂ and said H₂S₂O₈.

Please cancel claims 18 through 34.